

Remarks

Claims 1-3 are currently pending in the patent application. For the reasons and arguments set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

The instant Office Action dated December 14, 2007, notes the following rejections: claim 1 stands rejected under 35 U.S.C. § 103(a) over Holze (U.S. Patent No. 3,813,006); claim 2 stands rejected under 35 U.S.C. § 103(a) over Holze in view of Killingsworth (U.S. Patent No. 3,627,192); and claim 3 stands rejected under 35 U.S.C. § 103(a) over Holze in view of Biggs (U.S. Patent No. 5,702,049).

In rejecting claim 1 under § 103(a) over Holze, the Office Action alleges that, while Holze does not teach wedge-bonding tips on both ends of a tool, it would have been obvious from Holze's disclosure of replaceable welding tips to provide the claimed two-ended, reversible tool. Applicant agrees that Holze fails to teach the claimed two-ended bonding tool, but submits that the Office Action does not provide a valid reason for one of skill in the art to make the proposed modification to Holze's welding tips. Although the Office Action correctly states that Holze discloses replaceable single-ended welding tips, such tips are disclosed by Holze as prior art. To overcome problems presented by such replaceable single-ended welding tips, Holze provides welding tips arranged radially around a sleeve that can be rotated to change from one welding tip to another. Holze's radial welding sleeve is accommodated by modifications to the tip of the welding body. As such, Applicant submits that Holze's design would be unable to accommodate the two-ended reversible tool taught and claimed by Applicant, and therefore further substantial modifications to design of Holze would be required. Moreover, because Holze already provides an adequate solution to providing multiple tips, one of skill in the art would not seek to make further substantial modifications to Holze in the hopes of merely arriving at a similar solution.

The Office Action further alleges that it is a minor variation to provide a two-ended welding tool when single-tipped welding tools (such as those in Holze's prior art) are known. Applicant disagrees. First of all, the manner in which the tips of the disclosed single-tipped welding tools are mounted could not accommodate Applicant's claimed mounting of the recited two-ended shank, *i.e.*, in two different locations between the opposed wedge-bonding tips depending on which wedge-bonding tip is being used. Second, the disclosed single-tipped welding tools could not accommodate additional features that

may be provided using Applicant's claimed two-ended shank, such as a capillary bore that extends from end to end through the length of the shank to guide and feed the wire to be bonded into the bonding area (*see, e.g.*, new claim 16). Applicant therefore submits that the recited two-ended welding shank overcomes substantial obstacles not encountered and provides benefits not appreciated by use of the single-ended welding shanks disclosed by Holze.

For at least these reasons, Applicant submits that the § 103(a) rejection of claim 1 over Holze is improper, and requests reconsideration and withdrawal of the rejection.

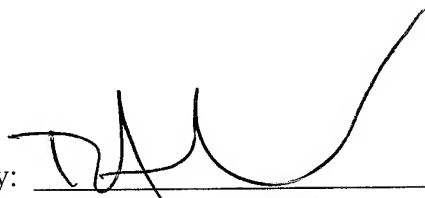
With respect to the § 103(a) rejections of claims 2 and 3, the Killingsworth and Biggs references were respectively introduced and combined with Holze for their alleged disclosure of additionally recited features. Applicant submits, however, that neither Killingsworth nor Biggs appears to contain any disclosure that would cure the deficiencies of the underlying Holze reference as noted above. For at least these reasons, Applicant submits that the § 103(a) rejections of claims 2 and 3 are improper, and requests reconsideration and withdrawal of the rejections.

With respect to the newly-added claims 14-16, Applicant respectfully submits that the art of record does not teach or suggest the feature of a two-ended welding shank that includes one or more guide holes for feeding the bonding wires to the wedge-bonding tips, whether provided as separate guide holes extending obliquely through each end of the shank, as a capillary bore that extends from end to end through the length of the shank, or in any other manner.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063.

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